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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,281	12/01/2003	Edward S. Miller	LVOX.006A	1828
20995 7590 02/26/2008 KNOBBE MARTENS OLSON & BEAR LLP 2040 MAIN STREET FOURTEENTH FLOOR IRVINE, CA 92614			EXAMINER VO, HUYEN X	
			ART UNIT 2626	PAPER NUMBER
			NOTIFICATION DATE 02/26/2008	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/725,281

Applicant(s)

MILLER ET AL.

Examiner

Huyen X. Vo

Art Unit

2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18-24, 34-42 and 51-79 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18-24, 34-42, 51-79 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 1.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection in view of Galanes et al. (US 7260535), necessitated by claim amendment and introduction of new claims.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 18-21, 23-24, 34, 38-42, 51-55, 57-60, 65-69, and 72-79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kriechbaum et al. (US 6975985) in view of Galanes et al. (US 7260535).

4. Regarding claim 18, Kriechbaum et al. disclose a method of testing a speech recognizer, the method comprising:

receiving a selected portion of a digital audio data file (*element 300 in figure 4*);

receiving a grammar having a set of responses expected to occur in the selected portion (*SRS or speech recognition system 500 in figure 4 inherently includes a set of grammar*);

based at least in part on the selected portion and the grammar, producing a decode result of the selected portion (*result of the speech recognition system 500 in figure 4 is the decoded result*);

receiving a transcript of the selected portion (*True transcript 520 in figure 4*); and scoring the decode result based at least in part on the transcript (*Aligner 550 in figure 4*).

Kriechbaum et al. fail to specifically disclose each audio file comprising audio recorded in response to a first prompt by a speech recognition application; and receiving a grammar associated with the first prompt, the grammar comprising a plurality of concepts, each concept having a set of phrases organized under a single idea, the idea representing an expected response to the first prompt. However, Galanes et al. teach each audio file comprising audio recorded in response to a first prompt by a speech recognition application (*col. 17, line 30 to col. 18-67, user is prompted for speech input*); and receiving a grammar associated with the first prompt, the grammar comprising a plurality of concepts, each concept having a set of phrases organized under a single idea, the idea representing an expected response to the first prompt (*col. 17, line 30 to col. 18-67, grammars are in association with prompt; so when a particular prompt is activated, its associated grammars are also activated for used by the speech recognizer; and the grammars includes a plurality of concepts (e.g. departure city, date, time etc.)*).

Since Kriechbaum et al. and Galanes et al. are analogous art because they are from the same field of endeavor, it would have been obvious to one of ordinary skill in

the art at the time of invention to modify Kriechbaum et al. by incorporating the teaching of Galanes et al. in order to improve speech recognition accuracy.

5. Regarding claims 34 and 57, Kriechbaum et al. disclose a system for testing a speech recognizer, the system comprising:

an audio recorder module for receiving digital audio input (*element 300 in fig. 4*);

a grammar editor module configured to access and allow modification of a grammar, the grammar comprising words, phrases, or phonemes expected to appear in the audio input (*SRS or speech recognition system 500 in figure 4 inherently includes a set of grammar, and the set of grammar may contain words, phrases, or phonemes*);

a speech recognition engine configured to output a recognition result based on the audio input and the accessed grammar (*result of the speech recognition system 500 in figure 4 is the decoded result*); and

a scoring module configured to score the recognition result based at least in part on a user-defined transcript of the audio input and the recognition result (*Aligner 550 in figure 4 aligns true transcript 520 with the decoded result*).

Kriechbaum et al. fail to specifically disclose each audio file comprising audio recorded in response to a first prompt by a speech recognition application; and receiving a grammar associated with the first prompt, the grammar comprising a plurality of concepts, each concept having a set of phrases organized under a single idea, the idea representing an expected response to the first prompt. However, Galanes et al. teach each audio file comprising audio recorded in response to a first

prompt by a speech recognition application (*col. 17, line 30 to col. 18-67, user is prompted for speech input*); and receiving a grammar associated with the first prompt, the grammar comprising a plurality of concepts, each concept having a set of phrases organized under a single idea, the idea representing an expected response to the first prompt (*col. 17, line 30 to col. 18-67, grammars are in association with prompt; so when a particular prompt is activated, its associated grammars are also activated for used by the speech recognizer; and the grammars includes a plurality of concepts (e.g. departure city, date, time etc.)*).

Since Kriechbaum et al. and Galanes et al. are analogous art because they are from the same field of endeavor, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Kriechbaum et al. by incorporating the teaching of Galanes et al. in order to improve speech recognition accuracy.

6. Regarding claims 20-21, 23-24, and 72, Kriechbaum et al. further disclose the method of Claim 18, wherein the set of responses comprises concepts, phrases, words, and/or phonemes (*SRS or speech recognition system 500 in figure 4 inherently includes a set of grammar, and the set of grammar may contain words, phrases, or phonemes*), wherein the decode result comprises concepts, phrases, words, and/or phonemes (*inherent feature in a speech recognition system*), wherein the decode result comprises a confidence score (*inherent in speech recognition system*), creating and/or modifying a response file associated with the audio data file (*col. 3, lines 60-67*), and wherein the response file comprises the audio file, a portion of the grammar associated with the

audio file, the decode result, and/or the transcript (*within the scope of the reference*), and transmitting the decoded result to a tuner module for processing (*referring to figure 4*).

7. Regarding claims 38-42 and 65-69, Kriechbaum et al. further disclose the system of claims 34 and 58, respectively, wherein the recognition result comprises a confidence score (*inherent in speech recognition system*), wherein the recognition result comprises a concept, phrase, word, or phoneme, wherein the recognition result comprises an indication of an acoustic model used by the speech recognizer in decoding the audio input, wherein the recognition result comprises an acoustic model score (*SRS or speech recognition system 500 in figure 4 inherently includes a set of grammar, and the set of grammar may contain words, phrases, or phonemes*), and further comprising a response file for logically associating the audio input, the transcript, the recognition result, and/or an output of the scoring module (*referring to figure 4*).

8. Regarding claims 51-55, Kriechbaum et al. further disclose the system of claim 34, wherein the speech recognition engine is configured to transmit the recognition result to a tuner module for processing (*referring to figure 4*), the tuner module configured to transmit digital audio input to the audio recorder module and grammar to the grammar editor module (*referring to figure 4, within the scope of the reference*), further comprising a test module configured to initiate a testing cycle by processing and transmitting digital audio input and grammar to the speech recognition engine (*referring*

to speech recognition system 500 in figure 4 inherently includes grammars and speech models for comparing with the input speech), wherein the speech recognition engine is configured to transmit the recognition result to a tuner module for processing (referring to figure 4, within the scope of the reference), the tuner module configured to transmit digital audio data and grammar to the test module (referring to figure 4, within the scope of the reference).

9. Regarding claims 58-60, Kriechbaum et al. further disclose the system of claim 57, further comprising a speech recognition engine configured to output a recognition result to the scoring module based on input received from the test module (*referring to figure 4*), wherein the speech recognition engine is configured to transmit the recognition result to a tuner module for processing (*referring to figure 4*), further comprising a tuner module configured to transmit digital audio data and grammar to the test module (*referring to figure 4, within the scope of the reference*).

10. Regarding claim 73, Kriechbaum et al. further disclose the method of claim 18, further comprising: producing a second decode result of each digital audio file based at least in part on the modified grammar (*the same as the first decode result in claim 1 if the user uses the system the second time*); and scoring the second decode results based at least in part on the transcript of each audio file (*the same as the first decode result in claim 1 if the user uses the system the second time*). Kriechbaum et al. fail to

specifically disclose modifying the grammar. However, Galanes et al. further teach the step of modifying the grammar (*col. 111, lines 60-67*).

Since Kriechbaum et al. and Galanes et al. are analogous art because they are from the same field of endeavor, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Kriechbaum et al. by incorporating the teaching of Galanes et al. in order to improve speech recognition accuracy.

11. Regarding claims 74-75, Kriechbaum et al. further disclose the method of Claim 73, further comprising comparing the scoring of the first decode results and the scoring of the second decode results (*the same as the first decode result in claim 1 if the user uses the system the second time*), wherein each of the set of phrases comprises a word, a word block, a BNF construct, or a phoneme block (*within the scope of the reference*).

12. Regarding claim 76, Kriechbaum et al. further disclose the method of Claim 18, further comprising: receiving a second plurality of digital audio data files, each audio file comprising audio recorded in response to a second prompt by the speech recognition application (*the same as the first decode result in claim 1 if the user uses the system the second time*); receiving a second grammar associated with the second prompt, wherein the second grammar comprises a plurality of concepts, each concept having a set of phrases organized under a single idea, the idea representing an expected response to the second prompt; producing a second decode result for each audio file in

the second plurality of digital audio data files based at least in part on the second grammar; receiving a transcript of each audio file in the second plurality of audio data files; and scoring the second decode results based at least in part on the transcripts of each of the second plurality of digital audio files (*the same as the first decode result in claim 1 if the user uses the system the second time*).

13. Regarding claims 77-79, Kriechbaum et al. further disclose the method of claim 18, wherein scoring the decode results comprises generating statistics on the accuracy of the decode results with respect to each transcript, the statistics comprising word error rate, concept error rate, and average confidence scores for correct and incorrect results, wherein the system is configured to, iteratively, modify the grammar based on a previous scoring of recognition results using the grammar editor module, output a recognition result for each audio data file based on the modified grammar using the speech recognition engine, and use the user-defined transcript of each audio data file to score the modified grammar recognition results using the scoring module, wherein the grammar editor module is further configured to modify the grammar based on the scoring of the recognition results, the test module is further configured to transmit the plurality of audio data files and the modified grammar to a speech recognition engine, and the scoring module is further configured to receive a recognition result based on the modified grammar from the speech recognition engine for each of the plurality of audio data files and to score the recognition results based at least in part on the user-defined transcript (*within the scope of the reference*).

14. Claims 22, 35-37, 56, 61-64, and 70-71 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kriechbaum et al. (US 6975985) in view of Galanes et al. (US 7260535), and further in view of Official Notice.

15. Regarding claims 22, 35-37, 56, 61-64, and 70-71, Kriechbaum et al. fail to specifically disclose a user interface, wherein the user interface comprises a graphical user interface, wherein the graphical user interface is configured to display an output from a scoring module configured to score the recognition result based at least in part on a user-defined transcript of the audio input and the recognition result, and wherein the graphical user interface is configured to display the digital audio input and the accessed grammar. However, examiner takes official notice that such user interface is well known in the art, particularly in computer system, where speech recognition is performed on. The method of displaying recognized result is also well known. One particular advantage of displaying recognized result is for the user to proofread the transcribed text.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huyen X. Vo whose telephone number is 571-272-7631. The examiner can normally be reached on M-F, 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on 571-272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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HXV

2/18/2008

